

Attorney Docket No.: LUKP:122US  
U.S. Patent Application No.: 10/711,828  
Reply to Office Action of March 13, 2007  
Date: May 30, 2007

### Remarks/Arguments

#### Amendments to the Claims

Claim 1 has been amended to include Claim 2. Accordingly, Claim 2 has been canceled. Claim 1 has also been amended to remove the term "especially" in view of the rejection under 35 U.S.C. 112, second paragraph.

Claim 11 has been amended to include Claim 12. Accordingly, Claim 12 has been canceled.

#### Claims 1-11 rejected under 35 U.S.C. 102(b)

The Primary Examiner has rejected Claims 1-11 under 35 U.S.C. 102(b) as being anticipated by United States Patent No. 5,315,218 (*Fortune et al.*). Applicants respectfully traverse the rejection. *Fortune et al.* describe current conducting switches that energize electric motors. By knowing which switches are closed and which switches are open, one knows which motor is energized and in which direction the motor is operating. However, *Fortune et al.* fail to describe a detection of signals of the motor as recited in Claim 1. Currently amended Claim 1 recites (emphasis added):

A method for determining the direction of movement of an electric motor of a transmission actuating mechanism for the select and/or shift operation, in which at least one signal of the motor is detected, wherein the direction of movement of the motor is validated on the basis of current flow direction by at least one detected signal, and wherein in a motor that is de-energized and stationary, the starting current is compared to the directional signal of a sensor.

*Fortune et al.* fail to describe a comparison between the starting current and the directional signal of a sensor. As you know, "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). *Fortune et al.* merely describes a method of switching the direction of current flow to an electric motor by using a set of switches, one of which is rapidly

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pulsed between conducting and non-conducting states. Col. 6, lines 1-29. The current flowing to the electric motor in the above description of *Fortune et al.* is a “starting current” according to Claim 1 of Applicant’s disclosure. *Fortune et al.* is silent regarding a sensor or comparing the starting current to the directional signal of a sensor. In other words, *Fortune et al.* fail to describe means for sensing or comparing the **actual** direction of the motor. Since *Fortune et al.* fail to anticipate each and every element as shown above, the rejection under 35 U.S.C. 102(b) cannot stand.

Claim 12, dependent upon Claim 11, was not rejected under 35 U.S.C. 102(b) as being anticipated by *Fortune et al.* because *Fortune et al.* fail to anticipate at least one sensor as a means for detecting current flow. Furthermore, *Fortune et al.* fail to anticipate at least one sensor. Accordingly, Claim 11 has been amended to include this unique claimed element of Claim 12.

Claims 1 and 11 are patentable in view of *Fortune et al.* Claims 3-10, being directly or indirectly dependant upon Claim 1, comprise each and every element recited in Claim 1 and are thus also patentable in view of *Fortune et al.* Applicants courteously request that the rejection of Claims 1 and 3-11 under 35 U.S.C. 102(b) be withdrawn. Claims 1 and 3-11 are allowable, upon which action is courteously requested.

#### **Claims 1-12 rejected under 35 U.S.C. 112, first and second paragraph**

The Primary Examiner has rejected Claims 1-12 under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The Primary Examiner states that the claimed “validation of movement of the motor based on flow direction by at least one detected signal” is not enabled. Applicants respectfully disagree.

“A patent need not teach, **and preferably omits**, what is well known in the art.” *In re Buchner*, 929 F.2d 660, 661, 18 U.S.P.Q.2d 1331, 1332 (Fed. Cir. 1991) (emphasis added) (citations omitted); M.P.E.P. § 2164.01. Applicants courteously submit that the patent to *Fortune et al.* is part of the general knowledge in the relevant field of art; in particular, methods and means of providing a starting current to an electric motor for select and shift operations. Claims 1 and 3-11 recite methods and apparatus for fault detection by means of incorporating a sensing

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device to determine the actual direction of rotation of an electric motor irrespective of the expected starting direction based on a predetermined starting current in a transmission actuating mechanism performing shift/select operations.

Various methods and means for sensing current, especially current flow through an electric motor, are known in the art. Specifically, Hall-effect based sensors are known and well-documented in the art for sensing direction of current flow. See inter alia U.S. Pat. No. 1,778,796. The present invention as recited in the claims builds upon what is already known in the art. Specifically, Claim 1 recites a method that can be incorporated directly in the apparatus disclosed in *Fortune et al.* to further fault detection capabilities of individual components and their installation in shift/select mechanisms. Applicants need not dwell on details already disclosed by *Fortune et al.*

The Primary Examiner has rejected Claims 1-12 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Primary Examiner states that the phrase "especially" in Claim 1 renders the claim indefinite. Accordingly, Applicants have removed the phrase "especially" in Claim 1.

Applicants courteously request that the rejections be withdrawn. Claims 2 and 12 have been canceled. Claims 1 and 3-11 are allowable upon which action is courteously requested.

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**Conclusion**

Applicants respectfully submit that all pending claims are now in condition for allowance, which action is courteously requested.

Respectfully submitted,



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